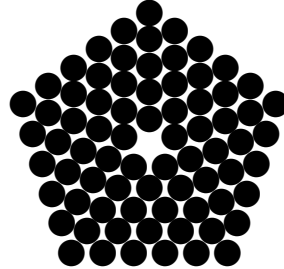


75 Seventy-Five LXXV



Corresponding ordinal: seventy-fifth.

The number 75 is the thirty-eighth odd number and the fifty-third composite number.

As a product of primes: $75 = 3 \cdot 5^2$.

The number 75 has six divisors: 1, 3, 5, 15, 25, 75.

The number 75 is the fifty-eighth deficient number: $s(75) = 1 + 3 + 5 + 15 + 25 = 49 < 75$.

As a sum of four or fewer squares: $75 = 5^2 + 5^2 + 5^2 = 1^2 + 5^2 + 7^2 = 1^2 + 1^2 + 3^2 + 8^2 = 1^2 + 3^2 + 4^2 + 7^2$.

As a sum of nine or fewer cubes: $75 = 5 \cdot 1^3 + 2 \cdot 2^3 + 2 \cdot 3^3 = 3 \cdot 1^3 + 2^3 + 4^3 = 6 \cdot 2^3 + 3^3$.

As a difference of two squares: $75 = 10^2 - 5^2 = 14^2 - 11^2 = 38^2 - 37^2$.

The number 75 appears in nine Pythagorean triples:

[21, 72, 75] [45, 60, 75] [40, 75, 85] [75, 100, 125] [75, 180, 195]
[75, 308, 317] [75, 560, 565] [75, 936, 939] [75, 2812, 2813]

The sixth and ninth are primitive.

As a sum of three odd primes: $75 = 3 + 5 + 67 = 3 + 11 + 61 = 3 + 13 + 59 = 3 + 19 + 53 = 3 + 29 + 43 = 3 + 31 + 41 = 5 + 11 + 59 = 5 + 17 + 53 = 5 + 23 + 47 = 5 + 29 + 41 = 7 + 7 + 61 = 7 + 31 + 37 = 11 + 11 + 53 = 11 + 17 + 47 = 11 + 23 + 41 = 13 + 19 + 43 = 13 + 31 + 31 = 17 + 17 + 41 = 17 + 29 + 29 = 19 + 19 + 37 = 23 + 23 + 29$.

The number 75 is a punctured pentagonal number as you can see in the figure above. Can you see the five triangles of size 15 that compose this figure?

The sum of the proper divisors of 75 is a square, as is their product.

The number 75 is the smallest pandigital number in base 4. Its base 4 representation, 1023_4 , contains all the base-4 digits.

The number 75 is the sum of the first five pentagonal numbers: $1 + 5 + 12 + 22 + 35$.

The prime numbers whose reciprocals have decimal periodicity 75 are 151, 4201, and 15763985553739191709164170940063151.

There are 75 ways to rank four things if you allow ties in the ranking. (Number Freak)
They are: 24 with no ties, 36 with one tie, 8 with a triple tie, 1 with a quadruple tie, and 6 with two ties.

Six bits is 75¢.

The 75th largest country (area) in the United Nations is Burkina Faso.

The 75th largest country (population) in the United Nations is Greece.

On 7/5/75 Arthur Ashe became the first black man to win the Wimbledon singles' tennis championship.